

GenCore version 5.1.4_p5_4578
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OM protein - protein search, using sw model

Run on: March 28, 2003, 12:02:57 ; Search time 114.384 Seconds
(without alignments)
880.694 Million cell updates/sec

Title: US-09-924-946-2

Perfect score: 4180

Sequence: 1 MAWSPATLFLFLLLGQPP.....YPANAELEOEORLNLI 756

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 908470 seqs, 133250620 residues

Total number of hits satisfying chosen parameters: 908470

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : A_Geneseq_101002.*

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2: /SIDS2/gcgdata/geneseq/geneseq-emb1/AA1981.DAT.*
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21: /SIDS2/gcgdata/geneseq/geneseq-emb1/AA2000.DAT.*
22: /SIDS2/gcgdata/geneseq/geneseq-emb1/AA2001.DAT.*
23: /SIDS2/gcgdata/geneseq/geneseq-emb1/AA2002.DAT.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	4180	100.0	756	AAE19380	Human endothelial
2	4174	99.9	756	AAE19380	Human 47765 lysyl
3	4170	99.8	756	AAE21043	Human drug metabol
4	4085.5	97.7	743	AAE19380	Human lysyl oxidase
5	3645.5	87.2	757	AAE19127	Polypeptide isolat
6	3641.5	87.1	757	AAE19127	Human lysyl-oxidas
7	3047.5	72.9	573	AAE19380	Clone HOEC84 #1
8	2278.5	54.5	769	AAE11940	Human lipid metabo
9	2268.5	54.3	774	AAE00077	Human lysyl oxidase
10	2268.5	54.3	774	AAE07649	Human LOR-1 protei

11	2263	54.1	752	23	ABB07653	Human lysyl-oxidas
12	2263	54.1	753	21	AAE00073	Human lysyl oxidase
13	2263	54.1	753	22	AAE05903	Amino acid sequenc
14	2263	54.1	753	23	AAE15549	Human secreted pro
15	2263	54.1	753	23	AAE15549	Human secreted pro
16	2249	53.8	753	22	AAE11935	Human lysyl oxidase
17	2232	53.4	443	21	AAE11935	Human CG153 (or C5
18	2232	53.4	443	21	AAE11935	Peptide fragment #
19	2223	53.2	408	21	AAE11935	Protein fragment:
20	2222	53.2	754	21	AAE00078	Human secreted pro
21	2163.5	51.8	732	22	AAE11927	Murine lysyl oxida
22	1890.5	45.2	608	22	AAE11936	Human CG153 (or C5
23	1832	43.6	638	23	AAE11936	Human CG153 (or C5
24	1773	42.4	641	21	AAE12307	Human lysyl oxidase
25	1282	30.7	227	23	AAE19385	Human secreted pro
26	1138	27.2	298	23	AAU76451	Human endothelial
27	1122	26.8	396	21	AAU76451	Human lysyl oxidase
28	939.5	22.5	511	22	ABB60618	Gene 15 human secr
29	833	19.9	171	21	AAE19380	Drosophila melanog
30	833	19.9	171	21	AAE19380	Clone HOEC84 #2
31	751	18.0	1785	19	AAE19380	Human secreted pro
32	694	16.6	125	23	AAE19382	Human SRCR protein
33	682	16.3	552	22	AAE09447	Human endothelial
34	655.5	15.7	1436	22	AAE09447	Human sbg14862SPER
35	633.5	15.2	822	20	AAE09087	Bovine WCL protein
36	633.5	15.2	875	20	AAE09087	Human serine prote
37	628	15.0	1116	23	AAU97582	Human neurotropsin
38	626	15.0	1121	22	AAE19380	Human CD163 recept
39	626	15.0	1124	22	AAE19380	Human polypeptide
40	626	15.0	1124	22	AAE19380	Human polypeptide
41	626	15.0	1151	23	AAU97585	Human CD163 recept
42	626	15.0	1156	23	AAU97584	Human CD163 recept
43	624	14.9	360	22	AAE09446	Drosophila melanog
44	622.5	14.9	422	22	AAE09446	Human sbg14862SPER
45	619.5	14.8	1149	23	AAU97583	Human CD163 recept

ALIGNMENTS

RESULT 1

AAE19380
ID AAE19380 standard; Protein; 756 AA.

XX AAE19380;

XX DT 31-MAY-2002 (first entry)

XX DE Human endothelial estrogen regulated (EER)-7 protein.

XX KW Human; lysyl oxidase; LO protein; endothelial estrogen regulated protein;
AAA; abdominal aortic aneurysms; EER-7 protein; myocardial infraction;
KW elastin; fibrotic disease; gene therapy; cardiant.

XX OS Homo sapiens.

XX PN WO200212470-A2.

XX PD 14-FEB-2002.

XX PF 08-AUG-2001; 2001WO-US24942.

XX PR 08-AUG-2000; 2000US-223763P.

XX PR 15-DEC-2000; 2000US-255838P.

XX PA (AMHP) AMERICAN HOME PROD CORP.

XX PI Evans MJ, Scicchitano MS, Bapat AR, Beer E, Bhat RA, Ferris E;

XX PI Mastroeni R, Zhang J, Karathanasis SK;

XX DR WPI; 2002-227150/28.

XX DR N-PSDB; AAD30517.

Novel isolated endothelial estrogen regulated gene protein comprising lysyl oxidase activity and conserved catalytic domain of lysyl oxidase, useful as target to treat abdominal aortic aneurysms, myocardial infarction -

Claim 1: Page 63-64: 68pp: English.

The patent discloses novel lysyl oxidase (LO) genes, termed endothelial estrogen regulated (EER-7) genes and their corresponding proteins. The invention also relates to an assay system to identify compounds that selectively modulate EER7 protein activity by interaction with estrogen receptors. Stimulation of LO enzyme activity of EER-7 acts as a target for abdominal aortic aneurysms (AAA) and myocardial infarctions. Increase in EER-7 lysyl oxidase activity increases elastin cross-linking in the inner elastic lamina which prevents development of aneurysms. Increased EER-7 is also useful to increase collagen cross-linkings which increase tensile strength of vessel wall which also prevents aneurysms. Myocardial infarction is prevented by inhibiting rupture of fibrous cap that covers plaque in the coronary vessels. Increased tensile strength of the cap, resulting from increased LO activity helps preventing the infarctions. Inhibition of LO activity is useful for treating fibrotic diseases. Stimulation of EER-7 proteins are useful for treating patients with estrogen-related disease states. Genetic variants of EER-7 can be detected to diagnose an EER-7 associated disease such as AAA or myocardial infarction. EER-7 polynucleotides are useful in gene therapy. The present sequence is human EER-7 protein.

Sequence	756 AA;
SO	
XX	

```
Query Match      100.0%; Score 4180; DB 23; Length 756;
Best Local Similarity 100.0%; Pred. NO. 0;
Matches 756; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
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Db	1	MANS	PATLFLFLLLLGQPPSPQSLGTTKLRLVGPSPKEEGRLEVLVHGQGWGTVCCD	60		
Qy	61	NFAI	QEAIVACRQLGFEAALTWAHSAKYQGQGGPITWLNVRVCVTGESLDDCGSGNGWVS	120		
Db	61	NFAI	QEAIVACRQLGFEAALTWAHSAKYQGQGGPITWLNVRVCVTGESLDDCGSGNGWVS	120		
Qy	121	DCSH	SEDEVGVI	CHPRHRGYLSETVSNALGPOGRLEEVRLKPIILASAKQHSPTVEGAVE	180	
Db	121	DCSH	SEDEVGVI	CHPRHRGYLSETVSNALGPOGRLEEVRLKPIILASAKQHSPTVEGAVE	180	
Qy	181	VKEY	HWRQVCDQGW	TWNNSRVVCGMLGPPSEVPDVS	SHYRKWDLKMRDPKSLKSLTN	240
Db	181	VKEY	HWRQVCDQGW	TWNNSRVVCGMLGPPSEVPDVS	SHYRKWDLKMRDPKSLKSLTN	240
Qy	241	KNSF	WIHOVTCLTGTEPHMANCQVOVAPARGKLRPACPGMHAVSVCAVGHPRFPKTKPQ	300		
Db	241	KNSF	WIHOVTCLTGTEPHMANCQVOVAPARGKLRPACPGMHAVSVCAVGHPRFPKTKPQ	300		
Qy	301	RKGS	WAEPRVRLRSGAQVGEGRVEVLNMRQWTCVCDHWNLI	SASVCRQLGFGSAREA	360	
Db	301	RKGS	WAEPRVRLRSGAQVGEGRVEVLNMRQWTCVCDHWNLI	SASVCRQLGFGSAREA	360	
Qy	361	LFGAR	LQGLGPTHLSVRCRGYERTLSDCPALGSGSONGQCHENAAA	VRCNVNPNMGFQNZ	420	
Db	361	LFGAR	LQGLGPTHLSVRCRGYERTLSDCPALGSGSONGQCHENAAA	VRCNVNPNMGFQNZ	420	
Qy	421	VRLAG	GRIPBEGLLLEVQVENVGVPRMGVS	CSENVGLTEAMVACRQLGFGFAIHAYKETWF	480	
Db	421	VRLAG	GRIPBEGLLLEVQVENVGVPRMGVS	CSENVGLTEAMVACRQLGFGFAIHAYKETWF	480	
Qy	481	WSGT	PTRAQVVMVSGVCSGTTELALQCCORHGPVHCSHGGRFLAGVS	CMDSPDLVMAAQ	540	
Db	481	WSGT	PTRAQVVMVSGVCSGTTELALQCCORHGPVHCSHGGRFLAGVS	CMDSPDLVMAAQ	540	
Qy	541	LVQETA	YLDRPLSQLYCAHEBNC	LSKSAHMDWPYGRRLRFPSTQIYNLQRTDFRPKT	600	
Db	541	LVQETA	YLDRPLSQLYCAHEBNC	LSKSAHMDWPYGRRLRFPSTQIYNLQRTDFRPKT	600	

CC markers for pharmacogenomic profiling of a subject and in gene therapy.

XX Sequence 756 AA;

Query Match 99.9%; Score 4174; DB 23; Length 756;

Best Local Similarity 99.9%; Pred. No. 0;

Matches 755; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 MAWSPATLFLFLLLLGQPPSPQSLGTTKRLVGPESKPEGRLEVLHQGWGTVCCD 60

DB 1 MAWSPATLFLFLLLLGQPPSPQSLGTTKRLVGPESKPEGRLEVLHQGWGTVCCD 60

QY 61 NFAIQEATVACRQLGFEAALTWAHSKYGQGGEPILNDVRCVGTSESSLDQCSNCGWS 120

DB 61 NFAIQEATVACRQLGFEAALTWAHSKYGQGGEPILNDVRCVGTSESSLDQCSNCGWS 120

QY 121 DCSHSDVGVIChRRHRYGLSETVSNALGQRRLEEVRLKPIILASAKQHSVTEGAVE 180

DB 121 DCSHSDVGVIChRRHRYGLSETVSNALGQRRLEEVRLKPIILASAKQHSVTEGAVE 180

QY 181 VKYEGHWRQVCDQGWMTMNSRVVCGMLGPFSEVPVDSHYRYKVMDLKMRDPKSLKSLTN 240

DB 181 VKYEGHWRQVCDQGWMTMNSRVVCGMLGPFSEVPVDSHYRYKVMDLKMRDPKSLKSLTN 240

QY 241 KNSFWIHQVTCLTGTEPHMANCQVAPARGKLRPACPGGMHVVSCVAGPHFRPPKTKQ 300

DB 241 KNSFWIHQVTCLTGTEPHMANCQVAPARGKLRPACPGGMHVVSCVAGPHFRPPKTKQ 300

QY 301 RKGSWAEPRVLRSGAQGEGRVEVLNMQWGTVCDDRNLNLSASVVCRLGFGSAREA 360

DB 301 RKGSWAEPRVLRSGAQGEGRVEVLNMQWGTVCDDRNLNLSASVVCRLGFGSAREA 360

QY 361 LFGARLQGLGPIHLSEVRGRGYERTLSDCPALGSGONGCHENAAVRCNVPMGFMQ 420

DB 361 LFGARLQGLGPIHLSEVRGRGYERTLSDCPALGSGONGCHENAAVRCNVPMGFMQ 420

QY 421 VRLAGRIPEGLEVEQVNGVPRGSGVSENWGLTEAMVACRQLGLGPAIHAYKETWF 480

DB 421 VRLAGRIPEGLEVEQVNGVPRGSGVSENWGLTEAMVACRQLGLGPAIHAYKETWF 480

QY 481 WSGTPRAQGVMSVRCSTGTELALQCCORHGPVHCSSGGGRFLAGVSCMDSDADLVNNAQ 540

DB 481 WSGTPRAQGVMSVRCSTGTELALQCCORHGPVHCSSGGGRFLAGVSCMDSDADLVNNAQ 540

QY 541 LVQETAYLEDRPLSOLCAHEENCLSKSADHMDWPYGRYRLLRFSTQIYNLGRDTRFPKT 600

DB 541 LVQETAYLEDRPLSOLCAHEENCLSKSADHMDWPYGRYRLLRFSTQIYNLGRDTRFPKT 600

QY 601 GROSVMWHQCHRRYHSTEVFTHYDILLTNGSKVAEGHKAFCLEDNCTPTGLQRRYACAN 660

DB 601 GROSVMWHQCHRRYHSTEVFTHYDILLTNGSKVAEGHKAFCLEDNCTPTGLQRRYACAN 660

QY 661 FGEQGVTVGCWDTYRHIDICOWDITDVGPGNYIFQVIVNPHYEVAESDFSNMLQCRCK 720

DB 661 FGEQGVTVGCWDTYRHIDICOWDITDVGPGNYIFQVIVNPHYEVAESDFSNMLQCRCK 720

QY 721 YDGRVWMLHNCHTGNSYPANAELSLEQERLNNLI 756

DB 721 YDGRVWMLHNCHTGNSYPANAELSLEQERLNNLI 756

RESULT 3

AAE21043

ID AAE21043 standard; Protein; 756 AA.

XX AAE21043;

AC AAE21043;

XX 01-JUL-2002 (first entry)

XX Human drug metabolising enzyme (DME-1) protein.

XX Human; drug metabolising enzyme; cell proliferative disorder; metabolic;

KW autoimmune; inflammatory; developmental; gastrointestinal; hypergonadal;

pancreatic; endocrine; eye; dermatitis; Addison's disease; antilipaemic; acquired immunodeficiency syndrome; AIDS; glomerulonephritis; anorectic; diabetes; atherosclerosis; adult respiratory distress syndrome; anaemia; Grave's disease; thyroiditis; Crohn's disease; infection; anticoagulant; systemic lupus erythematosus; cirrhosis; psoriasis; epilepsy; gastritis; cataract; hypopituitarism; cancer; rheumatoid arthritis; conjunctivitis; cystic fibrosis; peptic ulcer; Wilson's disease; hepatitis; antithyroid; allergy; diarrhoea; thrombosis; obesity; immunostimulant; tranquilizer; infertility; vulvarey; anticonvulsant; gynaecological; laxative; goitre; neutropic; jaundice; trauma; asthma; DME-1; enzyme.

OS Homo sapiens.

XX Key Location/Qualifiers

PH Peptide 1..24

FT Protein /label= Signal_peptide

FT Protein 25..756

FT Domain /note= "Mature human DME-1 protein"

FT Domain 505..731

FT Domain /note= "Copper domain"

XX WO200212467-A2.

XX 14-FEB-2002.

XX 03-AUG-2001; 2001WO-US24382.

XX 04-AUG-2000; 2000US-223055P.

PR 11-AUG-2000; 2000US-224728P.

PR 18-AUG-2000; 2000US-226440P.

PR 24-AUG-2000; 2000US-228067P.

PR 31-AUG-2000; 2000US-230063P.

PR 13-SEP-2000; 2000US-232244P.

PR 20-SEP-2000; 2000US-234269P.

XX (INCY-) INCYTE GENOMICS INC.

XX Baughn MR, Bruns CM, Das D, Delegeane AM, Ding L, Elliot VS;

PI Gandhi AR, Griffin JA, Hafalia AJA, Khan FA, Lal P, Lee S;

PI Lu DAM, Lu Y, Patterson C, Ramkumar J, Ring HZ, Sanjanwala MS;

PI Tang YT, Thangavelu K, Thornton M, Tribouley CM, Wallia NK;

PI Warren BA, Yang J, Yao MG, Yue H;

XX WPI; 2002-206331/26.

XX N-PSDB; AAD33480.

XX New human drug metabolizing enzyme polypeptide and polynucleotide

PT useful for diagnosing, treating and preventing cell proliferative,

PT autoimmune/inflammatory, endocrine, eye, metabolic and gastrointestinal disorders

XX

PS Claim 45; Page 144-146; 179pp; English.

XX The invention relates to an isolated human drug metabolising enzyme (DME) polypeptide or a biologically active or immunogenic fragment of DME. DME is useful for diagnosis, treatment and prevention of cell proliferative and autoimmune/inflammatory, developmental, endocrine, eye, metabolic and gastrointestinal disorders including live disorders. Autoimmune/inflammatory disorders include acquired immunodeficiency syndrome (AIDS), adult respiratory distress syndrome, Addison's disease, atherosclerosis, allergies, anaemia, asthma, autoimmune haemolytic anaemia, autoimmune thyroiditis, Crohn's disease, atopic dermatitis, diabetes mellitus, glomerulonephritis, rheumatoid arthritis, systemic lupus erythematosus, ulcerative colitis, uveitis, viral, bacterial, protozoal, parasitic, fungal, helminthic infections and trauma. Cell proliferative disorders include cancer, arteriosclerosis, cirrhosis and psoriasis; developmental disorders include epilepsy and cataract; and endocrine disorders include disorders of hypothalamus/pituitary, disorders associated with hypopituitarism, including diabetes insipidus, hypogonadism, disorders associated with hypothyroidism including goitre, Grave's disease, pancreatic disorders such as diabetes mellitus, disorders associated with adrenals, disorders associated with gonadal steroid hormones such as endometriosis, infertility, hypergonadal disorders and gynaecomastia.

CC Disorders of the eye include conjunctivitis and macular degeneration and
CC metabolic disorders include diabetes, cystic fibrosis, obesity and
CC hypocalcaemia. Gastrointestinal disorders include gastritis, peptic
CC ulcer, hepatitis, constipation, diarrhoea, jaundice, Wilson's disease,
CC thrombosis and hepatic tumours. DME gene is useful in gene therapy. The
CC present sequence is human DME-1 protein.
XX
XX
SQ Sequence 756 AA;
Query Match 99.8%; Score 4170; DB 23; Length 756;
Best Local Similarity 99.7%; Pred. No. 0;
Matches 754; Conservative 1; Mismatches 1; Indels 0; Gaps 0;
QY 1 MAWSPATLFLFLLLGQPPSPQSLGTTKLRLVGPESKPEEGRLVHOGQGTVCDD 60
DB 1 MAWSPATLFLFLLLGQPPSPQSLGTTKLRLVGPESKPEEGRLVHOGQGTVCDD 60
QY 61 NFAIQEATVACRQLGFEAALTWAHSARYGQEGPIWLDNVRVCGTTESSLDQCGSNGWVS 120
DB 61 NFAIQEATVACRQLGFEAALTWAHSARYGQEGPIWLDNVRVCGTTESSLDQCGSNGWVS 120
QY 121 DCSHSEDVGVICHPRRHGYSLETVSNALGPGQRRLLEEVRKPIILASAKQHSPTVEGAVE 180
DB 121 DCSHSEDVGVICHPRRHGYSLETVSNALGPGQRRLLEEVRKPIILASAKQHSPTVEGAVE 180
QY 181 VKYEGHWRQVCDQGWNTWNSRVVCGMLGFPSEVPVDSHYRVKMDPKSRKSLTN 240
DB 181 VKYEGHWRQVCDQGWNTWNSRVVCGMLGFPSEVPVDSHYRVKMDPKSRKSLTN 240
QY 241 KNSFWIHQVTCLTGTEPHMANCQVQVAPARGKLRPACPGEMHVVSCVAGHPFRPKTKPQ 300
DB 241 KNSFWIHQVTCLTGTEPHMANCQVQVAPARGKLRPACPGEMHVVSCVAGHPFRPKTKPQ 300
QY 301 RKGSWAEPRVLRSGAQVGEGRVEVLMNRQGTVCCHRWNLISASVCRQLGFGSARE 360
DB 301 RKGSWAEPRVLRSGAQVGEGRVEVLMNRQGTVCCHRWNLISASVCRQLGFGSARE 360
QY 361 LFGARLGQGLPILHSEVRCRGYERTLSDCPALGEGSQGCHENAAVRCNPNMGFQ 420
DB 361 LFGARLGQGLPILHSEVRCRGYERTLSDCPALGEGSQGCHENAAVRCNPNMGFQ 420
QY 421 VRLAGGRIPBEGGLEVEVNGVPRWGSVCSENWGLTEAMVACRQLGLGFAIHAYKETWF 480
DB 421 VRLAGGRIPBEGGLEVEVNGVPRWGSVCSENWGLTEAMVACRQLGLGFAIHAYKETWF 480
QY 481 WSGTPRAQEVVMSGVRCSTGTELALQCCQRHGPVHCCHGGGRFLAGVSCMDSPDLVMA 540
DB 481 WSGTPRAQEVVMSGVRCSTGTELALQCCQRHGPVHCCHGGGRFLAGVSCMDSPDLVMA 540
QY 541 LVQETAYLEDRPLSQLYCAHEENCLSKSADHMDWPYGYRLLRFSTQIYNLGRDTPRKT 600
DB 541 LVQETAYLEDRPLSQLYCAHEENCLSKSADHMDWPYGYRLLRFSTQIYNLGRDTPRKT 600
QY 601 GRDSWVHQCRRHYSIEVFTHYDILLTNGSKVAEGHAKSFCLDNTNCPGLQRRYACAN 660
DB 601 GRDSWVHQCRRHYSIEVFTHYDILLTNGSKVAEGHAKSFCLDNTNCPGLQRRYACAN 660
QY 661 FGEQGVTVGCDTYRHDIDCQWVDITDVGPNYIFQVIVNPHVEVAESDFSNMLOCRCK 720
DB 661 FGEQGVTVGCDTYRHDIDCQWVDITDVGPNYIFQVIVNPHVEVAESDFSNMLOCRCK 720
QY 721 YDGHVWVHLNCHTNGSNYPANAELSLEQEQRLRNLI 756
DB 721 YDGHVWVHLNCHTNGSNYPANAELSLEQEQRLRNLI 756

RESULT 4
AAG66060
ID AAG66060 standard; Protein; 743 AA.
XX
AC AAG66060;
XX
DT 27-FEB-2002 (first entry)

XX Human lysyl oxidase-like (LOXL4) protein.
DE
XX Lysyl oxidase: lysyl oxidase-like; LOXL1; LOX, neuroprotective; nontropic;
KW dermatological; hepatotropic; cytostatic; antidiote; LOXL4.
XX
OS Homo sapiens.
XX
PN WO200103702-A2.
XX
PD 08-NOV-2001.
XX
PF 03-MAY-2001; 2001WO-US14472.
XX
PR 03-MAY-2000; 2000US-201587P.
XX
PA (UYHA-) UNIV HAWAII.
XX
PI Csiszar K, Boyd CD, Kim Y, Le Saux CJ, Fong SFT;
XX
XX WPI: 2002-041491/05.
DR N-PSDB; AAI67789.
XX
XX Novel copper-dependent lysyl oxidase-like proteins, nucleic acids
PT encoding the protein for diagnostic assays and identifying modulators
PT useful for treating cancer, skin, copper-related, pulmonary or hepatic
PT disorders
XX
PS Claim 5; Page 79-80; 82pp; English.
XX
CC The invention provides lysyl oxidase-like (LOXL) polypeptides and
CC polynucleotides encoding them. The LOXL proteins (LOXL3 and LOXL4) can be
CC expressed by standard recombinant methodology. The LOXL polypeptides are
CC useful for identifying their modulators which can be used for treating a
CC disorder associated with LOX or LOXL polypeptide activity, including
CC disorders related to extracellular matrix materials, a cell migration,
CC cell proliferative disorder, skin, vascular system, developmental,
CC skeletal, neurological, hepatic system, copper-related, pulmonary system
CC disorders or lathyrism disorder and cancer in a subject. The LOXL
CC polynucleotides are useful as probes and primers. The LOXL polypeptides
CC are useful in bioassays, for the production of antibodies, useful for
CC diagnostic assays to determine expression levels and localization of
CC LOXL3 and LOXL4 proteins and other proteins of the LOX gene family in
CC various tissue samples from healthy or infirm subjects and to purify the
CC proteins. The antibodies are therapeutically useful to counteract or
CC supplement the biological effect of LOXL proteins in vivo. The present
CC sequence represents a human-derived LOXL4 protein.
XX
XX
SQ Sequence 743 AA;

Query Match 97.7%; Score 4085.5; DB 23; Length 743;
Best Local Similarity 98.1%; Pred. No. 0;
Matches 742; Conservative 0; Mismatches 1; Indels 13; Gaps 1;
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DB 1 MAWSPATLFLFLLLGQPPSPQSLGTTKLRLVGPESKPEEGRLVHOGQGTVCDD 60
QY 61 NFAIQEATVACRQLGFEAALTWAHSARYGQEGPIWLDNVRVCGTTESSLDQCGSNGWVS 120
DB 61 NFAIQEATVACRQLGFEAALTWAHSARYGQEGPIWLDNVRVCGTTESSLDQCGSNGWVS 120
QY 121 DCSHSEDVGVICHPRRHGYSLETVSNALGPGQRRLLEEVRKPIILASAKQHSPTVEGAVE 180
DB 121 DCSHSEDVGVICHPRRHGYSLETVSNALGPGQRRLLEEVRKPIILASAKQHSPTVEGAVE 180
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DB 181 VKYEGHWRQVCDQGWNTWNSRVVCGMLGFPSEVPVDSHYRVKMDPKSRKSLTN 240
QY 241 KNSFWIHQVTCLTGTEPHMANCQVQVAPARGKLRPACPGEMHVVSCVAGHPFRPKTKPQ 300
DB 241 KNSFWIHQVTCLTGTEPHMANCQVQVAPARGKLRPACPGEMHVVSCVAGHPFRPKTKPQ 300

QY 301 RKGSWAEPRVRLRSQAQVGEGRVEVLMNRQMTGVCDDRHWNLISASVCRQLGFGSARE 360
 Db 288 RKGSWAEPRVRLRSQAQVGEGRVEVLMNRQMTGVCDDRHWNLISASVCRQLGFGSARE 347
 QY 361 LFGARLGQGLPIHLSEVRCRGYERTLSDCPALGSGNCOHENAAVRCNVPNMGFQ 420
 Db 348 LFGARLGQGLPIHLSEVRCRGYERTLSDCPALGSGNCOHENAAVRCNVPNMGFQ 407
 QY 421 VRLAGGRIPBEGLEVEQVEVNGVPRMGSCSENWGLTEAMVACRQLGLGFALHAYKETWF 480
 Db 408 VRLAGGRIPBEGLEVEQVEVNGVPRMGSCSENWGLTEAMVACRQLGLGFALHAYKETWF 467
 QY 481 WSGTPRAQEVVMSGVRCSGTALQCCORHGPVHC SHGGGRFLAGVSCWDSAPDLVMA 540
 Db 468 WSGTPRAQEVVMSGVRCSGTALQCCORHGPVHC SHGGGRFLAGVSCWDSAPDLVMA 527
 QY 541 LVQETAYLEDRPLSOLYCAHEENCLSKSADHMDWPYGYRLLRFSTQIYNLGRDTPRP 600
 Db 528 LVQETAYLEDRPLSOLYCAHEENCLSKSADHMDWPYGYRLLRFSTQIYNLGRDTPRP 587
 QY 601 GRDSWVWHQCHRRHYSIEVFTHYDILLTLNGSKVAEGHKASFCLDNTCPTGLQRRYACAN 660
 Db 588 GRDSWVWHQCHRRHYSIEVFTHYDILLTLNGSKVAEGHKASFCLDNTCPTGLQRRYACAN 647
 QY 661 FGEQGVTVGCWDTYRHDIDCQWVDITDVGPNGYIFQVINPHYVEAESDFSNMLQCRCK 720
 Db 648 FGEQGVTVGCWDTYRHDIDCQWVDITDVGPNGYIFQVINPHYVEAESDFSNMLQCRCK 707
 QY 721 YDGHVWLNCHTNGSYNPANAELSLQEQLRNNLI 756
 Db 708 YDGHVWLNCHTNGSYNPANAELSLQEQLRNNLI 743

RESULT 5
 ID AAB19127 standard; Protein; 757 AA.
 AC AAB19127;
 DT 19-FEB-2001 (first entry)
 XX Polypeptide isolated from lymph node stromal cells of fsn -/- mice.
 DE Lymph node stromal cell; fsn -/- mice; inflammatory disorder;
 KW immune system disorder; cancer; viral disorder; HIV infection;
 KW blood vessel growth; tumour necrosis factor disorder; arthritis;
 KW inflammatory bowel disease; fibroblast growth factor-mediated disorder;
 KW cardiac failure.
 XX Mus sp.
 OS
 XX WQ2000058463-A1.
 PN
 XX 05-OCT-2000.
 PD
 XX 18-FEB-2000; 2000WO-N200015.
 XX
 PF 25-MAR-1999; 99US-0276268.
 PR 26-AUG-1999; 99US-0383586.
 XX
 XX (GENE-) GENESIS RES & DEV CORP LTD.
 PA
 XX Strachan L, Steeman M, Abernethy N, Onrust R, Kumble KD;
 PI Marison JG;
 XX
 DR WP1; 2000-664924/64.
 DR N-PSDB; AAA96737.
 XX
 XX Polypeptide expressed in mammalian fsn -/- lymph node stromal cells,
 PT useful for modulating growth of blood cells, for treating inflammatory
 PT and tumour necrosis factor-mediated disorders, cancer and viral
 PT disorders

XX Claim 1; Page 69-71; 75pp; English.
 PS The present sequence represents a polypeptide sequence which is
 XX isolated from lymph node stromal cells of fsn -/- mice. The
 CC polynucleotides and their polypeptides are useful for treating an
 CC inflammatory disorder, disorder of immune system and cancer selected
 CC from epithelial, lymphoid, myeloid, stromal and neuronal cancers, a
 CC viral disorder, in particular HIV infection and for modulating the
 CC growth of blood vessels. The polypeptides are useful for treating a
 CC tumour necrosis factor (TNF) mediated disease, such as those selected
 CC from arthritis, inflammatory bowel disease and cardiac failure and a
 CC fibroblast growth factor-mediated disorder. It is also useful in assays
 CC to determine biological activity, to raise antibodies, to isolate
 CC corresponding ligands or receptors, to quantify levels of protein or
 CC cognate corresponding ligand or receptors, as anti-inflammatory agents,
 CC and in compositions for the treatment of skin, connective tissue and
 CC immune system diseases. The polynucleotide is useful as marker for
 CC tissue, as a chromosome marker or tags in the identification of a
 CC genetic disorder.
 XX
 SQ Sequence 757 AA;
 Query Match 87.2%; Score 3645.5; DB 21; Length 757;
 Best Local Similarity 86.4%; Pred. No. 0;
 Matches 654; Conservative 44; Mismatches 58; Indels 1; Gaps 1;
 QY 1 MAWSPATLFLF-LLLLGQPPSPQSLGTTKLRLVGPSPKPEGRLEVLHQGWGTCD 59
 Db 1 MMWQPPTFSFLLLLSQAPSSRPQSSGTXKLRLVGPADRPKEGRLEVLHQGWGTCD 60
 QY 60 DNFAIQEATVACRQLGFEAALTWAHSKYGQGEPIWLDNVRVCTESSLQCGGNGV 119
 Db 61 DDFALQEATVACRQLGFESALTWAHSKYGQGEPIWLDNVRVCTEXTLQCGGNGWI 120
 QY 120 SDCSHSEVGVICHPRRHRYLSETVSNALGPGGRLEVLKPIILAKQHSPTVEGAV 179
 Db 121 SDCRSEVGVVCHPRROHGYHSEKVSNALGPGGRLEVLKPIILAKRHSPTVEGAV 180
 QY 180 EVKYGHRVQVCDQGWNTWNSRVVCGMLGFPSEVPDVSHTYRKVMDLKWDPKSKLSLT 239
 Db 181 ERYDGHWRVQVCDQGWNTWNSRVVCGMLGFPSTVSNHYRKVWNLKWKPKSLNLSLT 240
 QY 240 NKNSPWIIHVTCLTGTEPHANQVQVAPARGKLRLPACPGMHAVVSCVAGPHFRPKTKP 299
 Db 241 KKNSPWIIHVDCFGTEPHLAKQVQVAPARGKLRLPACPGMHAVVSCVAGPHFRPKTKP 300
 QY 300 QRKGSWAEPRVRLRSQAQVGEGRVEVLMNRQMTGVCDDRHWNLISASVCRQLGFGSARE 359
 Db 301 TRKESHAEEELKVRLSGSAQVGEGRVEVLMNRQMTGVCDDRHWNLISASVCRQLGFGSARE 360
 QY 360 ALFGARLGQGLPIHLSEVRCRGYERTLSDCPALGSGNCOHENAAVRCNVPNMGFQ 419
 Db 361 ALFGARLGQGLPIHLSEVRCRGYERTLSDCPALGSGNCOHENAAVRCNVPNMGFQ 420
 QY 420 QVRLAGGRIPBEGLEVEQVEVNGVPRMGSCSENWGLTEAMVACRQLGLGFALHAYKETWF 479
 Db 421 KVRLAGGRNSEEGVVEQVEVNGVPRMGTCSDHWGLTEAMVTCRQLGLGFANFALKDTW 480
 QY 480 FWSGTPRAQEVVMSGVRCSGTALQCCORHGPVHC SHGGGRFLAGVSCWDSAPDLVMA 539
 Db 481 YWQGTPEAKEVVMGVRCSGTALQCCORHGPVHC SHGGGRFLAGVSCWDSAPDLVMA 540
 QY 540 QLVQETAYLEDRPLSOLYCAHEENCLSKSADHMDWPYGYRLLRFSTQIYNLGRDTPRP 599
 Db 541 QLVQETAYLEDRPLSOLYCAHEENCLSKSADHMDWPYGYRLLRFSTQIYNLGRDTPRP 600
 QY 600 TGRDSWVWHQCHRRHYSIEVFTHYDILLTLNGSKVAEGHKASFCLDNTCPTGLQRRYACAN 659
 Db 601 AGRHSWVWHQCHRRHYSIEVFTHYDILLTLNGSKVAEGHKASFCLDNTCPTGLQRRYACAN 660
 QY 660 NTEGQGVTVGCWDTYRHDIDCQWVDITDVGPNGYIFQVINPHYVEAESDFSNMLQCRCK 719

Db 661 NFGGQVAVGCMWTYRHDDICQWVDITDVGPBGDIYFQVVVNTDVAESDFSNMIRCR 720
 QY 720 KYDGRVWLNCHTGNSTYPAEALSLSEOEORLNLI 756
 Db 721 KYDGRVWLNCHTGNSTYPAEALSLSEOEORLNLI 757
 RESULT 6
 ID ABB07650
 AC ABB07650; standard; Protein; 757 AA.
 XX 20-MAY-2002 (first entry)
 XX Human lysyl-oxidase gene 27 product.
 DE
 XX Lysyl-oxidase; angiogenesis; cancer; LOR-1; antiarthritic; antidiabetic;
 KW ophthalmological; antipsoriatic; antiinflammatory; vasotropic; human;
 KW immunomodulator; dermatological; vulnary; enzyme.
 XX Homo sapiens.
 OS
 XX WC020211667-A2.
 PN
 XX 14-FEB-2002.
 PD
 XX 07-AUG-2001; 2001WO-1L00728.
 PF
 XX 08-AUG-2000; 2000US-223739P.
 PR
 XX (TECR) TECHNION RES & DEV FOUND LTD.
 PA
 XX Neufeld G, Akiri G, Vadasz Z, Gengrovitch S;
 PI WPI; 2002-227109/28.
 DR
 XX Composition for modulating angiogenesis in mammalian tissue for
 PT treating e.g. arthritis, psoriasis, comprises molecule capable of
 PT modifying level and/or activity of at least one type of lysyl-oxidase
 PT of the tissue
 XX
 XX Claim 7; Page 54-57; 67pp; English.
 CC The invention provides a pharmaceutical composition useful for modulating
 CC angiogenesis in mammalian tissue. The composition comprises a molecule
 CC capable of modifying a level and/or activity of at least one type of
 CC lysyl-oxidase of the mammalian tissue as an active ingredient and a
 CC carrier. Methods for identifying molecules capable of modulating
 CC angiogenesis; for modulating angiogenesis in a mammalian tissue; and for
 CC determining the malignancy of cancerous tissue are also provided, where
 CC the modulation in activity is useful for treating arthritis, diabetic
 CC retinopathy, psoriasis, vasculitis; and for disease characterized by
 CC fragile blood vessels, including Marfan's syndrome, Kawasaki, Ehlers-
 CC Danlos, cutis-laxa, and Takayasu; diseases characterized by changes in the
 CC wall of blood vessels e.g. restenosis which is a common complication
 CC following balloon therapy, fibromuscular dysplasia and aortic stenosis.
 CC The present sequence represents a lysyl-oxidase gene 27 product.
 XX
 XX Sequence 757 AA;
 SQ
 Query Match 87.1%; Score 3641.5; DB 23; Length 757;
 Best Local Similarity 86.4%; Pred. No. 0;
 Matches 654; Conservative 43; Mismatches 59; Indels 1; Gaps 1;
 QY 1 MANSFPATLFLF-LLLLGCPPRPSQSLCTTKLRLVCPESKPEEGRLVHQGWGTCD 59
 Db 1 MMWQPPTFSLFLLLLLSQAPSSRPSQSGTKRLVGPADRPBEGRLVHQGWGTCD 60
 QY 60 DNFAIQBATVACROLGFEAALTAHSAKYQGEGPIWLDNVRVCVGTSESSLDQCSNGWV 119
 Db 61 DDFAIQBATVACROLGFEAALTAHSAKYQGEGPIWLDNVRVCVGTSESSLDQCSNGWV 120

QY 120 SDCSHSEVDGVICHPRRHRHGYLSTVSNALPQGRRLLEVILKPIILASAKOHSFVTEGAV 179
 Db 121 SDCRSESDGVVCHPRHQHGYHSEKVSNALPQGRRLLEVILKPIILASAKRHSFVTEGAV 180
 QY 180 EVKYECHRWYCDQGTWNSRVVCGMLGFPSEVPVDSHYIRKVDLKWDRPKSRILKSLT 239
 Db 181 EVRYDGHWRQVCDQGTWNSRVVCGMLGFPSTVSNHYIRKVDLKWDRPKSRILKSLT 240
 QY 240 NKNSEFIHQVTCLTGTEPHMANCQVQVAPARGKIRPACPGGMHVVSCVAGPHFPKTKP 299
 Db 241 KKNSEFIHQVTCLTGTEPHMANCQVQVAPARGKIRPACPGGMHVVSCVAGPHFPKTKP 300
 QY 300 QKQSWAEPRVRLRSGAQVGEGRVEVLNMQWGTVCDFHWNILISASVVCQLGFGSARE 359
 Db 301 TRKESHAELKVRRLRSGAQVGEGRVEVLNMQWGTVCDFHWNILISASVVCQLGFGSARE 360
 QY 360 ALFGARLQGLGPIHLSEVRCRGYERTLSDCPALEGSONCQHENAAAACVNCVNMGFQ 419
 Db 361 ALFGARLQGLGPIHLSEVRCRGYERTLSDCPALEGSONCQHENAAAACVNCVNMGFQ 420
 QY 420 QVRLAGGRIPBEGLEVEVQVGVNMGVSENNGLTELMVACRQIGIGIHAHYKETW 479
 Db 421 KVRLAGGRNSEEVEVQVGVNMGVSENNGLTELMVACRQIGIGIHAHYKETW 480
 QY 480 FWSGTPEAQEVVMSVGRCSGTETALQOCORGPVHCHSGIGRFLAGVSCMDSAPULVNA 539
 Db 481 YWQGTPEAQEVVMSVGRCSGTETALQOCORGPVHCHSGIGRFLAGVSCMDSAPULVNA 540
 QY 540 QLVQETAYLEDRPLSOLYCAHEENCLSKSADHMDWPGYIRLLRFSTQIYNIGRTDFRPK 599
 Db 541 QLVQETAYLEDRPLSOLYCAHEENCLSKSADHMDWPGYIRLLRFSTQIYNIGRTDFRPK 600
 QY 600 TGRDSWVWHQCHRHHSIEVTFHYDILLTNGSKVAEGHKAFCLEDTNCTGLQRRYACA 659
 Db 601 AGRHSWVWHQCHRHHSIEVTFHYDILLTNGSKVAEGHKAFCLEDTNCTGLQRRYACA 660
 QY 660 NFEQGVTVGCMWTVRHDDICQWVDITDVGPBGDIYFQVVVNTDVAESDFSNMIRCR 719
 Db 661 NFEQGVTVGCMWTVRHDDICQWVDITDVGPBGDIYFQVVVNTDVAESDFSNMIRCR 720
 QY 720 KYDGRVWLNCHTGNSTYPAEALSLSEOEORLNLI 756
 Db 721 KYDGRVWLNCHTGNSTYPAEALSLSEOEORLNLI 757
 RESULT 7
 ID AAB49534
 AC AAB49534 standard; Protein; 573 AA.
 XX AAB49534;
 DT 09-MAR-2001 (first entry)
 XX Clone HOEC84 #1.
 DE Gene therapy; human; bone morphogenic protein; neural disorder; immu-
 KW muscular; reproductive; gastrointestinal; pilmonary; cardiovascular;
 KW renal; proliferative; wound healing; infectious disease; thrombosis;
 KW arthritis; infertility.
 XX Homo sapiens.
 OS
 XX WC0200061774-A2.
 PN
 XX 19-OCT-2000.
 PD
 XX 06-APR-2000; 2000WO-US09028.
 PF
 XX 09-APR-1999; 99US-0128701.
 PR 23-APR-1999; 99US-0130693.
 PR 29-APR-1999; 99US-0131672.
 PR 11-JUN-1999; 99US-0138632.
 PR 03-AUG-1999; 99US-0147020.

PR	09-SEP-1999;	99US-0152933.
XX	(HUMA-) HUMAN GENOME SCI INC.	
XX	Ruben SM, Ni J, Komatsoulis G, Rosen CA, Shi Y;	
XX	WPI; 2000-656328/63.	
DR	N-PSDB; AAC90026.	
XX		
PT	Bone morphogenic proteins and nucleic acid sequences encoding them,	
PT	useful for detecting, preventing and treating cancers and neurological,	
PT	immune system and cardiovascular disorders -	
XX	Claim 11; Pages 277-279; 291pp; English.	
XX	The present invention relates to isolated coding sequences and proteins	
CC	for human bone morphogenic proteins (BMPs) (see AAC90025-C90030 and	
CC	AAB49533-B49538). The present sequence is one such protein sequence.	
CC	This sequence may be used to treat disorders such as neural, immune,	
CC	muscular, reproductive, gastrointestinal, pulmonary, cardiovascular,	
CC	renal, and proliferative disorders (numerous examples of each type of	
CC	disorder are given in the specification), wounds, infectious diseases,	
CC	thrombosis, arthritis, and infertility.	
XX		
SQ	Sequence 573 AA;	
	Query Match 72.9%; Score 3047.5; DB 21; Length 573;	
	Best Local Similarity 98.6%; Pred. No. 3.6e-271;	
	Matches 563; Conservative 0; Mismatches 3; Indels 5; Gaps 2;	
QY	1 MAWSPPATLFLFLLLLGGPPSRQSGLTTKLRLVGPESKPEGRLEVLHGQGWTVCDD 60	
Db	1 MAWSPPATLFLFLLLLGGPPSRQSGLTTKLRLVGPESKPEGRLEVLHGQGWTVCDD 60	
QY	61 NFAIQEATVACRQLGFEEAALTWAHSAYKGQEGPIWLNDNRCVGTESSLDCGSGNGWGS 120	
Db	61 NFAIQEATVACRQLGFEEAALTWAHSAYKGQEGPIWLNDNRCVGTESSLDCGSGNGWGS 120	
QY	121 DCSHSDGVGTCHPRRHRYGILSETVSNALGPQ--GRRLEEVRKLPILASAKQHSPTGEA 178	
Db	121 DCSHSDGVGTCHPRRHRYGILSETVSNALGPQAGNR---GRLLKPILASAKQHSPTGEA 177	
QY	179 VEVKYEGHWQRQCDOGWMTMNSRVVCGMLGFPSEVPDSSHYYRKVMDLKMRDPKSRLKSL 238	
Db	178 VEVKYEGHWQRQCDOGWMTMNSRVVCGMLGFPSEVPDSSHYYRKVMDLKMRDPKSRLKSL 237	
QY	239 TNKNSFWTHQVTCLGTEPHMANCQVAPARGKLRPACPGGHAAVVSCVAGHPFRPKTK 298	
Db	238 TNKNSFWTHQVTCLGTEPHMANCQVAPARGKLRPACPGGHAAVVSCVAGHPFRPKTK 297	
QY	299 PORKGSMAEEPVRRLRSGAQVGEGRVEVLMNRQWCTVCDHRWNLTISASVVCRLGFGGAR 358	
Db	298 PORKGSMAEEPVRRLRSGAQVGEGRVEVLMNRQWCTVCDHRWNLTISASVVCRLGFGGAR 357	
QY	359 EALFCARLGQGLPITHLSVEVRCRGYERTLSDCPALGSGQNGQHENAARCNVNPMMGFQ 418	
Db	358 EALFCARLGQGLPITHLSVEVRCRGYERTLSDCPALGSGQNGQHENDAARCNVNPMMGFQ 417	
QY	419 NOVRLAGRIIPBEGLLEVQVENVGPRNGSVCSENWGLTEAMVACRQLGLGPAIHAYKET 478	
Db	418 NOVRLAGRIIPBEGLLEVQVENVGPRNGSVCSENWGLTEAMVACRQLGLGPAIHAYKET 477	
QY	479 WFMSTGPRAQEVVMGSGVRCGSTETALQQCRHGPVHCSHGGGRFLAGVSCMDSAPDLVMN 538	
Db	478 WFMSTGPRAQEVVMGSGVRCGSTETALQQCRHGPVHC SHGGGRFLAGVSCMDSAPDLVMN 537	
QY	539 AQLQVETAYLEDRLPSQLYCAHEENCLSKSA 569	
Db	538 AQLQVETAYLEDRLPSQLYCAHEENCLSKSA 568	
RESULT	8	
AAEI1940		

AAE11940 standard; Protein; 769 AA.

AAE11940;

18-DEC-2001 (first entry)

Human lipid metabolism related protein #3.

Human; apolipoprotein; lipase; lipoprotein receptor; ALLr; angina; cardiovascular disease; lipid metabolism; myocardial infarction; cerebral ischaemia; arterial thrombosis; thrombolytic; antilipemic; coronary artery thrombosis; cerebral artery thrombosis; stroke; intracardiac thrombosis; gene therapy; cardiovascular; vasodilator; neuroprotectant; cerebroprotective.

Homo sapiens.

WO200179446-A2.

25-OCT-2001.

16-APR-2001; 2001WO-US12529.

14-APR-2000; 2000US-197137P.

20-JUN-2000; 2000US-0598042.

03-AUG-2000; 2000US-0631451.

22-SEP-2000; 2000US-0667298.

17-NOV-2000; 2000US-0714936.

(HYSE-) HYSEQ INC.

Ballinger DG, Loeb D, Montgomery JR, Tang TY, Zhou P, Goodrich R; Liu C, Asundi V, Zhao QA, Wehrman T, Drmanac RT, Ren F, Qian XB; Wang D;

WPI; 2001-611724/70.

N-PSDB; AAD19235.

Nucleic acids encoding human apolipoproteins, lipases, and lipoprotein receptor polypeptides, useful for preventing diagnosing and treating lipid metabolism disorders, thrombosis and cardiovascular diseases -

Claim 10; Page 257-259; 266pp; English.

The invention relates to polynucleotides encoding proteins CG122, CG178, CG95, CG121, CG162, CG27, CG153 and CG168 which are related to proteins involved in lipid metabolism and cardiovascular disease such as human apolipoproteins, lipases and lipoprotein receptor proteins. These DNA and protein sequences are useful for treating or preventing disorders associated with apolipoproteins, lipases and lipoprotein receptor (ALLr) expression and for treating lipid metabolism, cardiovascular diseases and thrombosis. Antibodies against these proteins are useful for determining the presence of or predisposition to a disease associated with altered levels of these sequences. ALLr polypeptides are also useful for identifying agents (agonists and antagonists) that bind to them and cells expressing ALLr proteins are useful for identifying a therapeutic agent for use in treatment of a pathology related to aberrant expression or physiological interactions of this polypeptide. Vectors comprising these DNA and protein sequences are also useful for producing ALLr proteins. The nucleic acids and polypeptides of the invention are also useful for the treatment of occlusive cardiovascular diseases, myocardial infarction, cerebral ischaemia, angina, arterial thrombosis, coronary artery thrombosis and cerebral artery thrombosis or intracardiac thrombosis and stroke. The nucleotides of the invention are used in gene therapy. The present sequence is human protein related to proteins involved in lipid metabolism.

Sequence 769 AA;

Query Match 54.5%; Score 2278.5; DB 22; Length 769;

Best Local Similarity 55.1%; Pred. No. 3.2e-200;

Matches 422; Conservative 106; Mismatches 205; Indels 33; Gaps 1

RESULT 8
AAE11940

3 WSPATLFL--LLGPPPS-----RPSLGTGTTKLRLVGPESKPEGRLEVLHOGWG 55
 9 WSPWGLLLCLLSSCLGSPSPSTGEKXAGSQ-LRPLAGFPKPKYEGRVEIQRAGENG 67
 56 TVCDONFAIQTAEATVACROGLFPAALTAHSAKYGGEGPIWLDNVRVCGTSSLDQCSN 115
 68 TICDDDFTLQAAHILCRELGFTATGTHSAKYGGPIWLDNLSGSGTQSVTECASR 127
 116 GCVCSHSDGVVICHPRHRGYSLSETVSNALGPOGRRLLEVRKLPILASAKQHSPT 175
 128 GWGSDCTHEDACVICKDQRLPGFSDSNVIEV--EHLQVEEVRIRPAVGVGRLPVT 185
 176 EGAVEVKEHGMQVCDQGWNTMNSHNVCGMLGFPSEVPDVSYYRKV---WDLKWRDP 231
 186 EGLVEVRLPDGWSQVCDKMSAHNSHVCGMLGFPSEKVNAAFYKLRKRAAKVSARHP 245
 232 K--SRKSLTNKNSFWIHOVTCGLTEPHMANCOVQVAPARGKLRPACPGCHAVVSVAG 289
 246 KPLGRLLAQOQHSFGLHGVACVGTAEHLSLCSLEFYRANDTAR--CPGGGPAVVCVPG 303
 290 PHF-----RPPKTKPORKGMAEPRVRLRSCAQVGEGRVEVLMNRQWGTCDHRNL 342
 304 PVYAASSGKKQOQSKFQ-----GEARVLKGAHPGEGRVEVLKASTWGTVCDRKMDL 357
 343 ISASVCRQLGFGSAREALFARLGGGLGPIHLSEVRCRGYERTLSDCPALGSGQCOH 402
 358 HAASVVCRELFGSAREALSGARMGQGAHLSSEVRCSGQELSLWKCPKHNITAEDCSH 417
 403 ENAAVRCNVPMGPFONVRLAGRIPEEGLLVEQVVEVNGVPRWGSVCSENWGLTEAMVA 462
 418 SDAVGRNLPTGNAETIRLSGGRSQHEGRVEVOIGPGPLRWGLICGDDWGLEAMVA 477
 463 CRQLGLGFAIHAYKTEPWSGTTPRAQEVWMSVGRCSGTALQOCORHGP-VHCSHGGR 521
 478 CRQLGLGVANHGLQETWYD--SGNTEVVMGSGVRCGTGTELSLDCAHGTHITCKRTGR 536
 522 FLAVGSCMDSAPDLVWNAQLVOETAYLEDRLPLSOLYCHAEENCLSKSADHMDPYGRL 581
 537 FTAGVICSETADLLHLSALVQETAYIEDRLPHMLYCAAEENCLCLASSANPYGHRRL 596
 582 LRFSTQIYNLGRDPRKTRGDSWVHCHRHYSIEVFTHYDILLTLNGSKVAECHKASF 641
 597 LRFSSQIHNGLRADPRKAGRISWVHCHGHYSMDIFTHYDILTPNGTKVAECHKASF 656
 642 CLEDTNCPGLQRYACANFGEGVTVGCDWYRHDIDCWVDITDYGPNYIFQVIVNP 701
 657 CLEDTCEQEDVSKRYECANFGEGITVGCWDLRYHDIDCWVDITDVRPNYILQVINP 716
 702 HYVAESDFSNMLQCRCKYDGRVHLNCHTGNSTYANAEISLEQ 747
 717 NFEVAESDFTNNAKNCCKYDGHRIWVNHCHIGDAPFSEAHRRFER 762

RESULT 9
 AAB00077
 ID AAB00077 standard; Protein; 774 AA.

AC AAB00077;
 DT 08-NOV-2000 (first entry)

DE Human lysyl oxidase related protein (Lor).

kw Lysyl oxidase; lysyl oxidase like protein; lor; lor-2; collagen;
 kw Lysyl oxidase related protein; lor; lor-2; elastin; bone;
 kw connective tissue; congestive heart failure; ischaemia;
 kw cardiac hypertrophy; ischaemic-reperfusion injury.

OS Homo sapiens.
 XX WO200044910-A1.
 XX 03-AUG-2000.
 PD

27-JAN-2000; 2000MO-US02125.
 27-JAN-1999; 99US-0117580.
 25-MAR-1999; 99US-0276400.
 23-NOV-1999; 99US-0448076.
 (MILL-) MILLENNIUM PHARM INC.
 Khodadoust MM, Macbeth KJ;
 WPI; 2000-482974/42.
 New nucleic acid molecule encoding a lysyl oxidase related-2 (Lor-2)
 protein useful in the treatment of cardiovascular disorders e.g.
 cardiac hypertrophy
 Disclosure; Fig 5a-d; 148pp; English.
 Lysyl oxidase (Lox) is an extracellular copper enzyme that
 initiates the crosslinking of collagens and elastin by catalysing
 oxidative deamination of the epsilon-amino group in certain lysine
 and hydroxylysine residues of collagens and lysine residues of
 elastin. Lox has been shown to be important in a variety of cellular
 and physiologic processes including biogenesis of connective tissue
 matrices and bone resorption. A lysyl oxidase like protein (Lol) was
 also identified from a human skin fibroblast cDNA library and contains
 extensive homology to several coding domains within the human Lox
 mRNA. Lol is believed to be involved in collagen maturation. A lysyl
 oxidase related protein (Lor) has now been identified which inhibits
 many of the structural features of lysyl oxidase and is overexpressed
 in senescent fibroblasts. It is believed to play a role in age
 associated changes in extracellular proteins. Lor contains four
 domains referred to as scavenger receptor cysteine-rich domains
 (SCR domains) which are believed to be involved in cell binding to
 other cell surface proteins or extracellular molecules. The nucleic
 acids encoding Lor, Lor proteins and antibodies directed against them
 are particularly useful in the treatment of cardiovascular disorders
 e.g. congestive heart failure, ischaemia, cardiac hypertrophy and
 ischaemic-reperfusion injury.

Query Match 54.3%; Score 2268.5; DB 21; Length 774;
 Best Local Similarity 55.1%; Pred. No. 2.7e 199;
 Matches 408; Conservative 119; Mismatches 190; Indels 23; Gaps 7;
 21 PSRPOSGLTTLRLVGPESKPEGRLEVLHOGWGTVCDNFAIQTAEATVACROIGPFAAL 80
 47 PQAPANVAKIQLRLAGQKRGSEGEVYVYDQWGTVCDDHDFSHAAHVVCRELGYVEAK 106
 81 TWASAKYGGEGPIWLDNVRVCGTSSLDQCSHSDGVVICHPRHRG 140
 107 SWTASSYCKGEGPIWLDNHLCTGNEATLAATCTNSGNGW/TCCKHTEIVGVVCSKRI 166
 141 LSETVSNALGPOGRRLLEVRKLPILASAKQHSPTVEGVVEVKEGHWRCVDCQWNTMN 199
 167 KFDNSLINOIENLINTQVEDIRAILSTYRKETPWMEGVVEVKEGKTWKQICDKHWTAKN 226
 200 SRVVCGLGFPSEVPVDSHYRYKVMDLKMRDPKSLTNKNSFWIHOVTCLEPHEMA 259
 227 SRVVCGLGFPSEVPVDSHYRYKVMDLKMRDPKSLTNKNSFWIHOVTCLEPHEMA 273
 260 NC-----QVQVAPARGKLRPACPGCHAVVSVAGVAGPFPKPKYEGRVEIQRAGENG 315
 274 SKLGPVSLDPMK---NVTCEGLPAVVCVPGVQVFE PDGHSRFRKAYKPEQPLVRLRG 330
 316 GAQVGEGRVEVLMNRQWGTCDHRNLISASVVCROLGFGSAREALFGARLGGGLGPIHL 375
 331 GAYIGEGRVEVLKNGEWGTVCDDKMDLVASVVCRELFGSAREALFGARLGGGLGPIHL 390
 376 SEVRCRGYERTLSDCPALGSGQCHENAAVRCNVPMGPFONVRLAGRIPEEGGLE 435

Db 391 NEIQCTGNEKSIIDCKFNAESQ-GCNHEEDAGVRCNTPAMGLQKXLRNGRNPYEGRV 449
 QY 436 VQVENVGVRWGSVCSENWGLTEAMVACRQLGLGFPAIHAYKETWFWSGTPRAQVVMG 495
 Db 450 VLVERNGSLVMGVCQNGWIVVAVVCRQLGLGFASNAFQETWYWHGVDVNSKNVMSGV 509
 QY 496 RCGSTELALQOCORHG-PVHCSSHGGRFLAGVSCMSADPLVMNAQIVQETAYLEDRPL 554
 Db 510 KCSGTLSLAHCRHDEEDVACPGQGVQYAGVACSETAPDLVLNAEMVOOTTYLEDRPM 569
 QY 555 QLYCAHEENCLSKSDHMDWPYGRLLRSTQIYNLGRTPRKTGRDSWVWHQCHRY 614
 Db 570 MLOCAEENCLSASAAQDPTTGYRLLRFSQIHNGQSDFFPKNGRHWIWHDCRHY 629
 QY 615 HSIETVTHYDILLTNGSKVAEGHKAFCLEDTNCPGLQRRYACANFGQGVTVGCWDTY 674
 Db 630 HSMVEVTHYDILLNLTNGTKVAEGHKAFCLEDTCEBGDIQKNYECANFGDQGITMGCD 689
 QY 675 RHIDCQWVDITDVGPNGYIFQVIVNPHYVEAESDFSNMQLQCRKYDGHVWLNCHTG 734
 Db 690 RHIDCQWVDITDVPDGYLFQVWINPNPFEVAESDYSNNIMKCRSRYDGHRIWMYNCH 749
 QY 735 NSYPANAELSLEQEQRLNN 754
 Db 750 GSFSETEKKEFHFSGLLNN 769

RESULT 10
 ABB07649
 ID ABB07649 standard; Protein; 774 AA.
 XX ABB07649;
 AC ABB07649;
 DT 20-MAY-2002 (first entry)
 XX Human LOR-1 protein.
 DE
 XX
 XX Lysyl-oxidase; angiogenesis; cancer; LOR-1; antiarthritic; antidiabetic;
 KW ophthalmological; antipsoriatic; antiinflammatory; vasotropic; human;
 KW immunomodulator; dermatological; vulnery; enzyme.
 XX
 XX Homo sapiens.
 XX
 XX WO200211667-A2.
 XX
 XX 14-FEB-2002.
 XX
 XX 07-AUG-2001; 2001WO-IL00728.
 XX
 XX 08-AUG-2000; 2000US-223739P.
 XX
 XX (TECR) TECHNION RES & DEV FOUND LTD.
 XX
 XX Neufeld G, Akiri G, Vadasz Z, Gengrovitch S;
 XX
 XX WPI; 2002-227109/28.
 DR N-PSDB; ABA95142.
 XX
 XX Composition for modulating angiogenesis in mammalian tissue for
 PT treating e.g. arthritis, psoriasis, comprises molecule capable of
 PT modifying level and/or activity of at least one type of lysyl-oxidase
 PT of the tissue
 XX
 XX Claim 7; Page 51-54; 67pp; English.
 PS
 XX
 XX The invention provides a pharmaceutical composition useful for modulating
 CC angiogenesis in mammalian tissue. The composition comprises a molecule
 CC capable of modifying a level and/or activity of at least one type of
 CC lysyl-oxidase of the mammalian tissue as an active ingredient and a
 CC carrier. Methods for identifying molecules capable of modulating
 CC angiogenesis; for modulating angiogenesis in a mammalian tissue; and for
 CC determining the malignancy of cancerous tissue are also provided, where
 CC the modulation in activity is useful for treating arthritis, diabetic

CC retinopathy, psoriasis, vasculitis; and for disease characterized by
 CC fragile blood vessels, including Marfan's syndrome, Kawasaki, Ehlers-
 CC Danlos, cutis-laxa, and takayasu; diseases characterized by changes in the
 CC wall of blood vessels e.g. restenosis which is a common complication
 CC following balloon therapy, fibromuscular dysplasia and aortic stenosis.
 CC The present sequence represents a LOR-1 protein, belonging to the lysyl
 CC -oxidase family of enzymes.
 XX
 SQ Sequence 774 AA;
 Query Match 54.3%; Score 2268.5; DB 23; Length 774;
 Best Local Similarity 55.1%; Pred. No. 2.7e-199;
 Matches 408; Conservative 119; Mismatches 190; Indels 23; Gaps 7;
 QY 21 PRRPOSGLTKRLVLGPESKPEGRLEVLHQQWGTVCDDNFATQAEATVACRQLGFEEAL 80
 Db 47 POAPNAVAKIQURLAGQKRKHSEGRVVEVYDQWGTVCDDDFSIHAAHVVCRELGYEAK 106
 QY 81 TWAHSAKYQGGEPITWLVNRCVGTETESSLDQGSNGWVSDCSHSEDEVGVICHPRHRGY 140
 Db 107 SMTASSSYKGGEGPIWLDNLHCTGNEATLAACTSNWGTVCCKHTEDEVGVCSDKRIPGF 166
 QY 141 -LSETVSNALGPQGRRLLEVRLLKPIASAKOHSPTVEGAVEVKYEGHWRQVCDQGWTTNN 199
 Db 167 KFDNSLIHQIENLNIQVEDIRAILSTYRKETPWEVVEVKEGKTWKQICDKHWTAQN 226
 QY 200 SRVCGMLGFFSEVPSHYRKWDLKMRDPKSLKSLTNKNSFWIIHQVTLGTGTEPHMA 259
 Db 227 SRVCGMFGFGE---RTYNTKVY-----KMFASRRKQRYWPFSDMCTGTEAHIS 273
 QY 260 NC----QVQVAPARGKLRPACPGMHAVVSCVAGPHFPPTKPKORKSWAEPEVRRLRS 315
 Db 274 SKGLGPQVSLDPMK---NVTCENGLPAVVSCVPQGVFDPGFSRFRKAYKEQPLVRLRG 330
 QY 316 GAQVGEGRVLEMLNFWGTVCDDRWNLLISASVVCRLQGFSGAREALFGARLQGLGPIHL 375
 Db 331 GAYTGEGRVEVLKNGEWGTVCDDKMDLVSASVVCRELGFSGAKEATVTSRLQGGIGPIHL 390
 QY 376 SEVRCRGYERTLSDCPALGSGQNGQCHENAAVRCNVNMGFQNOVRLAGGRIPREGILLE 435
 Db 391 NEIQCTGNEKSIIDCKFNAESQ-GCNHEEDAGVRCNTPAMGLQKXLRNGRNPYEGRV 449
 QY 436 VQVENVGVRWGSVCSENWGLTEAMVACRQLGLGFPAIHAYKETWFWSGTPRAQVVMG 495
 Db 450 VLVERNGSLVMGVCQNGWIVVAVVCRQLGLGFASNAFQETWYWHGVDVNSKNVMSGV 509
 QY 496 RCGSTELALQOCORHG-PVHCSSHGGRFLAGVSCMSADPLVMNAQIVQETAYLEDRPL 554
 Db 510 KCSGTLSLAHCRHDEEDVACPGQGVQYAGVACSETAPDLVLNAEMVOOTTYLEDRPM 569
 QY 555 QLYCAHEENCLSKSDHMDWPYGRLLRSTQIYNLGRTPRKTGRDSWVWHQCHRY 614
 Db 570 MLOCAEENCLSASAAQDPTTGYRLLRFSQIHNGQSDFFPKNGRHWIWHDCRHY 629
 QY 615 HSIETVTHYDILLTNGSKVAEGHKAFCLEDTNCPGTQRRYACANFGQGVTVGCWDTY 674
 Db 630 HSMVEVTHYDILLNLTNGTKVAEGHKAFCLEDTCEBGDIQKNYECANFGDQGITMGCD 689
 QY 675 RHIDCQWVDITDVGPNGYIFQVIVNPHYVEAESDFSNMQLQCRKYDGHVWLNCHTG 734
 Db 690 RHIDCQWVDITDVPDGYLFQVWINPNPFEVAESDYSNNIMKCRSRYDGHRIWMYNCH 749
 QY 735 NSYPANAELSLEQEQRLNN 754
 Db 750 GSFSETEKKEFHFSGLLNN 769

RESULT 11
 ABB07653
 ID ABB07653 standard; Protein; 752 AA.
 XX ABB07653;
 AC ABB07653;
 XX

DT	20-MAY-2002 (first entry)	Db	291	SGQKQOQSKPQ-----GEARVRLKGAHPGEGRVEVLKASTWGTVCDRKWDLHAASVV	344
XX	Human lysyl-oxidase gene 33 product.	Qy	349	CRQLGFGSARALFCARLGGLGPIHLSEVRRCGYERTLSQCPALEGSONGCOHENAAAV	408
XX	Lysyl-oxidase; angiogenesis; cancer; LOR-1; antiarthritic; antidiabetic;	Db	345	CRELFGSARALSGARMGQGAHILSEVRCSGOELSLKCFKKNITAECDCHSQDAGV	404
KW	ophthalmological; antiproliferative; antiinflammatory; vasotropic; human;	Qy	409	RCNVNMGFQNOVRLAGRIPEEGLEVVQVEVNCVPRWGSVCSENWGLTEAMVACROGL	468
KW	immunomodulator; dermatological; vulnerary; enzyme.	Db	405	RCNLPTGAEIRLISGGRSQHEGRVEVOIGPGPLRWGIICGDDWCTLEAMVACROGL	464
XX	Homo sapiens.	Qy	469	GFATHAYKETWFSGTPTRAQEVMSVRCSTELALOCCRHGP-VHCSHGGGRFLAGVS	527
XX	W0200211667-A2.	Db	465	GYANHGLQETWYD-SGNITEVMSGVRCITGELSLDCJHGHGTHICKRTGTFTAGVI	523
XX	14-FEB-2002.	Qy	528	CMDSPDLVMAQLVOETAYLEDRPLSOLYCAHBNCLSHSADHMDWPGYVRRLLRSTQ	587
XX	07-AUG-2001; 2001WO-1100728.	Db	524	CSETASDLLHLSALVOETAYIEDRPLHMLYCAABENCLASARSANWPGYHRRLLRFSO	584
XX	08-AUG-2000; 2000US-223739P.	Qy	588	IYNLGRDTPKTRGRDSWVWHQCHRHYSIEVFTHYDLLINGSKVAEGHKASFCLEDTN	647
XX	(TECR) TECHNION RES & DEV FOUND LTD.	Db	584	IHNLRADPRPKAGRHSMVWHECHGHVHSDIFTHYDILPNGTKVAEGHKASFCLEDTE	643
XX	Neufeld G, Akiri G, Vadasz Z, Gengrovitch S;	Qy	648	CPTGLORRYACANFGQGVTVGCWDTYRHDIDCWVDITVGPNGYIFQVIVNPHYEVAE	707
XX	WPI; 2002-227109/28.	Db	644	QEDYSKRYECANFGQGITVGCWDLYRHDIDCWIDITVJPKPGNYILOVWINPFEVAE	703
XX	Composition for modulating angiogenesis in mammalian tissue for	Qy	708	SDFSNNMLQCRCKYDGHVWLHNCHTGNVYPAANAELSLEQORLRNNLI	756
XX	treating e.g. arthritis, psoriasis, comprises molecule capable of	Db	704	SDFTNNAKCKYDGHRIWVHNCHIGDAFSEANRRFRERYPGOTSNOI	752
XX	modifying level and/or activity of at least one type of lysyl-oxidase				
XX	of the tissue				
XX	Claim 7; Page 64-67; 67pp; English.				
PS	The invention provides a pharmaceutical composition useful for modulating				
CC	angiogenesis in mammalian tissue. The composition comprises a molecule				
CC	capable of modifying a level and/or activity of at least one type of				
CC	lysyl-oxidase of the mammalian tissue as an active ingredient and a				
CC	carrier. Methods for identifying molecules capable of modulating				
CC	angiogenesis; for modulating angiogenesis in a mammalian tissue; and for				
CC	determining the malignancy of cancerous tissue are also provided where				
CC	the modulation in activity is useful for treating arthritis, diabetic				
CC	retinopathy, psoriasis, vasculitis; and for disease characterized by				
CC	fragile blood vessels, including Marfan syndrome, Kawasaki, Ehlers-				
CC	Danlos curis-laxa, and takysu; diseases characterized by changes in the				
CC	wall of blood vessels e.g. stenosis which is a common complication				
CC	following balloon therapy, fibromuscular dysplasia and aortic stenosis.				
CC	The present sequence represents a lysyl-oxidase gene 33 product.				
XX	Sequence 752 AA;				
XX	Query Match 54.1%; Score 2263; DB 23; Length 752;				
XX	Best Local Similarity 54.5%; Pred No 8.3e-199;				
XX	Matches 419; Conservative 105; Mismatches 205; Indels 40; Gaps 10;				
Qy	3 WSPPTATLFLFL--LIGQPPPS-----RQSLGTTKRLVGPESKPEGRLEVLHQGWG 55				
Db	9 WSPWGLLLCLLSCSGSPSPSGTGPPEKAGSQG-LRPRLAGPPRKYEGVEIQRAGWG 67				
Qy	56 TVCDDNFAIQEATVACRQLGFEAALTWAHSKAYGQGEPIWLDNVRVCVTESLQCCGN 115				
Db	68 TICDDDETLOAAHILCRELGFTTEATGTHSAKYGGTGTGRIWLDNLSCSGTEQSVTECASR 127				
Qy	116 GWGVSDCSHSDVGVIChPRRHREGLSETVSNALGPGRLEVLRLKPLILASAKQHSVPT 175				
Db	128 CWGNSDCTHDEADAGVICKDQRLPGFSDSNVIEV--EHLQVEEVRIRPAVWGRRPLPT 185				
Qy	176 EGAVEVYEGHWRVOCOGMTMNSRVVCGMLGFPSPVVDSHYIRKWDMLKMRDPKSL 235				
Db	186 EGLVEVRLPDGMSQVCDKGWNAHSHVVCVGMGFPSEKRVNAAPY-----RL 232				
Qy	236 KSLTNKSNFWIHOVTCLETPEMANCOVOVAPARGKLRPACPGMHVAVSCVAGPHF--- 292				
Db	233 LAQRQCHSFGHGVACVTEAHLSCSLSEFVRANDTAR--CPGGGPAVSCVCPVYAA 290				
Qy	293 ----RPPKTKPQRKGSWAEEPRVRLRSQAQVGEGRVEVLNMRQWGTVCDRHWNLIASVV 348				

RESULT 12
 AAB00073
 ID AAB000073 standard; Protein; 753 AA.
 AC AAB000073;
 DT 08-NOV-2000 (first entry)
 DE Human lysyl oxidase related protein (Lor)-2
 KW Lysyl oxidase; lysyl oxidase like protein; lox; lol; collagen;
 KW Lysyl oxidase related protein; lor; lor-2; elastin; bone;
 KW connective tissue; congestive heart failure ischaemia;
 KW cardiac hypertrophy; ischaemic-reperfusion injury.
 XX Homo sapiens.
 OS WO200044910-A1.
 PN 03-AUG-2000.
 PD 27-JAN-2000; 2000WO-US02125.
 PF 27-JAN-1999; 99US-0117580.
 PR 25-MAR-1999; 99US-0276400.
 PR 23-NOV-1999; 99US-0448076.
 XX (MILL-) MILLENNIUM PHARM INC.
 XX Khodadoust MM, Macbeth KJ;
 XX WPI; 2000-482974/42.
 DR N-PSDB; AAA47798, AAA47799.
 PT New nucleic acid molecule encoding a lysyl oxidase related-2 (Lor-2)
 PT protein useful in the treatment of cardiovascular disorders e.g.
 PT cardiac hypertrophy
 XX Claim 4; Fig 3; 148pp; English.
 XX Lysyl oxidase (Lor) is an extracellular copper enzyme that

initiates the crosslinking of collagens and elastin by catalysing oxidative deamination of the epsilon-amino group in certain lysine and hydroxylysine residues of collagens and lysine residues of elastin. Lox has been shown to be important in a variety of cellular and physiologic processes including biogenesis of connective tissue matrices and bone resorption. A lysyl oxidase like protein (Lol) was also identified from a human skin fibroblast cDNA library and contains extensive homology to several coding domains within the human Lox mRNA. Lol is believed to be involved in collagen maturation. A Lysyl oxidase related protein (Lor) has now been identified which inhibits many of the structural features of lysyl oxidase and is overexpressed in senescent fibroblasts. It is believed to play a role in age associated changes in extracellular proteins. Lor contains four domains referred to as scavenger receptor cysteine-rich domains (SRCR domains) which are believed to be involved in cell binding to other cell surface proteins or extracellular molecules. The nucleic acids encoding Lor, Lor proteins and antibodies directed against them are particularly useful in the treatment of cardiovascular disorders e.g. congestive heart failure, ischaemia, cardiac hypertrophy and ischaemic-reperfusion injury.

Sequence	753 AA;
SQ	

Query Match 54.1%; Score 2263; DB 21; Length 753;
Best Local Similarity 54.5%; Pred. No. 8.3e-199;
Matches 419; Conservative 105; Mismatches 205; Indels 40

10:

Qy	3	WSP	PATUFL	FLL	--LL	QPPPS	---	R	POS	LGT	T	K	L	R	L	V	G	P	S	K	E	B	E	R	L	V	L	H	G	Q	W	55					
Db	9	WSP	MGLL	CL	LL	CS	CL	S	P	S	P	S	T	G	P	E	K	K	A	G	S	Q	--L	R	F	L	A	G	P	R	K	E	Y	67			
Qy	56	T	V	C	D	N	F	A	I	Q	E	A	T	V	A	C	B	O	L	F	E	A	A	L	T	W	A	H	S	A	K	Y	Q	115			
Db	68	T	I	C	D	D	D	E	T	L	Q	A	A	H	I	C	R	E	L	G	F	T	E	A	T	G	M	T	H	S	A	K	Y	127			
Qy	116	G	W	G	S	D	C	S	H	S	E	D	G	V	I	C	H	P	R	R	H	G	L	S	E	T	V	S	N	A	L	G	P	175			
Db	128	G	W	G	S	D	C	T	H	D	E	A	G	I	C	K	D	O	R	L	P	C	F	S	D	N	I	E	V	--E	B	H	L	185			
Qy	176	E	G	A	V	E	Y	E	G	H	R	O	V	C	D	G	M	T	M	N	S	R	V	C	M	L	G	P	S	E	V	P	D	S	235		
Db	186	E	G	L	V	E	R	L	P	D	G	S	Q	V	C	D	K	G	S	A	H	N	S	H	V	C	M	L	G	P	S	E	K	R	232		
Qy	236	K	S	L	T	N	K	S	F	M	T	H	O	V	T	C	L	G	T	P	H	A	N	C	O	V	O	V	A	P	A	R	G	K	292		
Db	233	L	A	Q	Q	H	S	F	L	G	H	V	A	C	T	T	A	H	L	S	C	L	S	E	F	Y	R	A	N	D	T	A	--C	P	290		
Qy	293	---	R	P	K	T	P	Q	R	K	G	S	W	A	E	P	R	V	L	R	S	G	A	O	V	G	E	R	V	E	L	M	N	R	348		
Db	291	S	G	O	K	Q	O	S	K	P	Q	---	---	G	E	A	R	V	L	K	G	A	H	P	G	E	R	V	E	L	K	A	T	M	G	344	
Qy	349	C	R	L	G	F	G	S	A	E	A	L	F	G	A	R	L	G	O	G	L	P	I	H	L	S	E	V	R	C	R	G	Y	E	R	408	
Db	345	C	R	E	L	G	F	G	S	A	E	A	L	S	G	A	R	M	Q	O	M	A	I	H	L	S	E	V	R	C	S	G	O	E	L	404	
Qy	409	R	C	N	P	N	M	G	F	O	N	V	R	L	A	G	R	I	P	E	B	L	E	V	O	V	A	N	G	V	P	R	M	G	S	E	468
Db	405	R	C	N	I	P	T	G	A	E	T	R	I	L	S	G	R	S	Q	H	E	G	R	V	E	Q	I	G	G	P	L	R	W	G	L	464	
Qy	469	G	F	A	I	H	A	Y	K	E	T	M	F	S	G	T	P	R	A	O	E	V	M	S	G	R	C	S	T	E	L	A	L	Q	O	527	
Db	465	G	Y	A	N	H	L	O	E	T	W	Y	M	D	--S	G	N	I	T	E	V	M	S	G	R	C	T	G	T	E	L	S	D	O	A	523	
Qy	528	C	M	S	A	P	D	L	M	N	A	Q	L	V	O	E	T	A	I	D	B	P	L	S	Q	L	C	A	E	N	C	L	S	A	D	587	
Db	524	C	S	E	A	S	D	L	L	H	S	A	L	V	O	E	T	A	I	D	B	P	L	S	Q	L	C	A	E	N	C	L	S	A	S	583	
Qy	588	I	N	L	G	R	T	D	F	R	K	T	C	R	D	S	W	H	O	C	H	R	H	Y	S	T	E	V	T	H	D	L	L	T	N	G	647

Db	703	QY	756	703
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Db	705	QY	756	703
Db	706	QY	756	703
Db	707	QY	756	703
Db	708	QY	756	703
Db	709	QY	756	703
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Db	793	QY	756	703
Db	794	QY	756	703
Db	795	QY	756	703
Db	796	QY	756	703
Db	797	QY	756	703

RESULT 13

AAG65903
ID AAG65903 standard; protein; 753 AA.

AA AAG65903:

DT 11-FEB-2002 (first entry)

XX
DE
Amino acid sequence of GSK gene Id 14849.

XX Peptide hormone; antidiabetic; anorectic; antianorectic; antiasthmatic;
KW antidepressant; nootropic; neuroprotectant; hypotensive; hypertensive;
KW cytostatic; cerebroprotective; vasotropic; human.

XX Homo sapiens.

XX PN WO200172961-A2.

04-OCT-2001

XX PF 22-MAR-2001: 2001WO-US09226.

XX
PP 24-MAR-2000: 2000US-193158P

28-MAR-2000; 2000US-192668P.
PR
DE 27 APR 2000; 2000US-200166E

XX
/CMTV / CMTGUY YVE DEECUAM C

PA (SMIK) SMITHKLINE BEECHAM PLC.

PI Agarwal P, Murdoch PR, Rizvi SK, Smith RF, Xiang Z, Kabnick KS;
PI Lai Y;

DR WPI; 2001-639223/73.

XX Isolated polypeptides, which may be peptide hormones, which are
PT identified by high throughput genome-based biology which identifies
PT genes and gene products as therapeutic targets for treatment of
PT diseases such as diabetes and cancer -

XX
PS
Claim 1: Page 79-80: 99pp: English:

The invention provides polypeptides (AAG65886-65918) which may be peptide hormones (including insulin, growth hormones, chemokines, cytokines, neuropeptides, integrins, kallikreins, lamins, melanins, natriuretic hormones, neuropepsin, pituitary hormones, pleiotrophins, prostaglandins, secretogranins, selectins, thromboglobulins, thyrotropins) identified by high throughput genome-based biology and polynucleotides (AA167176-67208) encoding them. The polypeptides can be expressed by standard recombinant methodology. The polypeptides are useful in the treatment of disease such as diabetes, breast-, prostate-, colon cancer and other malignant tumors, hyper- and hypotension, obesity, bulimia, anorexia, growth abnormalities, asthma, manic depression, dementia, delirium, mental retardation, Huntington's disease, Tourette's syndrome, schizophrenia, growth, mental or sexual development disorders, and dysfunctions of the blood cascade system including those leading to stroke. The polynucleotides may be used as diagnostic reagents through detecting mutations in the associated gene and for chromosome localization and for tissue expression studies. The polypeptides and polynucleotides may also be used as vaccines.

AA	Sequence	753 AA;
SO		

Query Match 54.1%: Score 2263: DB 22: Lenath 753:

Query Match 54.1%; Score 2203; DS 22;
Best Local Similarity 54.5%; Pred. No. 8.3e-199;

Base local similarity 34.28; frequency 0.36 125;
Matches 419; Conservative 105; Mismatches 205;
Indels 40; Gaps 10;

us-09-924-946-2.rag

Wed Apr 2 09:13:59 2003

3 WSPPTATLFLLL--LLGPPPS-----RPSLGTTLKRLVGPESKPEGRLEVLHOGQWG 55
 9 WSPWGLLLCLLSSGLSPSPTEPKKAGSG--LRPLAGFPKPYEGRVETORACEMG 67
 56 TVCDNFATQEAATVACRQLGFEAALTWAHSAKYGGEGPIWLDNVRVCGTESSLDQCSN 115
 68 TICDDFTLQAAILKRELGFTEATGTHSAKYGGTGRIWLDNLSLCSGTEQSVTECASR 127
 116 GWVSCDSHSDGVICHPRHRGYLSETVSNALPQGRLEBURLKPLASAKQHSPT 175
 128 GWNSDCTHEDAGVICKOORLFGFSDNSVIE--EHLQVEEVRIRPAVGMGRPLPT 185
 176 EGAVEVKECHWRQVCDQGMNNSVVCMLGFPSEVPDVSHTYKRVKMDLKMPPKSL 235
 186 EGLVEVLPDQMSQVCDKWSAHNSHVVCMLGFPSEKRVNAFY-----RL 232
 236 KSLTNKNSFWIHQVTCLTGTEPHMANCOVQVAPARGKLRPACPGGMHNVSCVAGPHF-- 292
 233 LAORQSHSFLGHVACVGTGAHLSLCSLEFYRANDTAR--CPGGPAVVSVCVPGVYAA 290
 293 ----RPPKTKPQKSWAEPRVRLRSGAOGVGRVEVLNMRQVTCVDRHNLISASVV 348
 291 SGOKKQOSKQP-----GEARVRLKGAHGPGRVEVLKASTWGTGVCBCKDLHAASVV 344
 349 CROLFGSAREALFGARLQGLGPIHLSEVRCRGVETLSDCLALEGSQNGCOHENAAV 408
 345 CRELFGSAREALSGARMQGMGAHLSVRCSGQELSLWKCPHKNITAEDECSHQDAGV 404
 409 RCNVNMGFQONVRLAGGRIPEEGLELVQVEVNGVPRWGSVCSENWGLTEAMVACRQLG 468
 405 RCLNLYTCAETRIRLSGGRSQHEGRVEVQIGPGPLRWGLICGDWGTLEAMVACRQLG 464
 469 GFALHAYKETWSTGPRAQEVVMSGVRCSTELALQOCQRHP--VHCSSGGRFLAGVS 527
 465 GYANHGLQETWYD--SGNTEVMSGVRCSTELSDQCAHGHGTHICKRTGTRFAGVI 523
 528 CWDSPDLVWNAQLVQETAYLEDRPLSOLYCAHEENCLSKSADMDWPYGRRLRSTO 587
 524 CSETASDLLHLSALVQETAYIEDRPLHMLYCAAEENCLASSARSANWPIGHRRLRSTO 583
 588 IYNLGRTPDRPKTGRDSWVHQCRRHYHSIEVFTHYDLTLNGSKVAEGHKAACLEDTN 647
 584 IHNLAGRFPKAGRSWVHQCRRHYHSMDIFTHYDLTPNGTVAEGHKAACLEDTE 643
 648 CPTGLQRYACANFGQGVTVGCWDTYRHDIDCQWVDITDVGPGNYIFQVIVNPHYVAE 707
 644 CQEDVSKRYECANFGQGVTVGCWDLRYHDIDCQWIDITDVKPGNYILQVIVNPHYVAE 703
 708 SDFSNMLQCRCKYDGHVRLNCHTGNSTYANAAELSLFQEQRLRNLI 756
 704 SDFTNNAMCKCKYDGHRIWVHNCIHGIDAFSEANRRFRERYPQOTSNOI 752
 RESULT 14
 ID AAEL5549 standard; Protein: 753 AA.
 AC AAEL5549;
 DT 12-MAR-2002 (first entry)
 DE Human secreted protein-3 (SECP).
 KW Human; secreted protein; SECP-3; cell proliferative disorder; hepatitis;
 KW atherosclerosis; psoriasis; autoimmune disorder; AIDS; Grave's disease;
 KW acquired immunodeficiency syndrome; inflammatory disorder; osteoporosis;
 KW Addison's disease; anaemia; diabetes mellitus; angina pectoris;
 KW multiple sclerosis; allergy; rheumatoid arthritis; myocardial infarction;
 KW cardiovascular disease; oedema; hypertension; neurological disorder;
 KW gene therapy; Alzheimer's disease; Parkinson's disease; mental disorder;
 KW epilepsy; fetal tubular acidosis; cancer; vaccine; cataract; fungicide;
 KW antibacterial; protozoacide; congenital glaucoma; transgenic animal;
 KW drug screening; vulnery; virucide; antihelminthic; antiparasitic;

vasotropic; nootropic; anticonvulsant; neuroleptic; tranquilliser;
 antidepressant.
 OS Homo sapiens.
 XX
 Key Location/Qualifiers
 Peptide 1..25
 Protein 26..753
 Domain 51..145 "Scavenger receptor cysteine-rich domain"
 Region 134..144
 Domain 183..292 "Scavenger receptor cysteine-rich domain"
 Domain 310..407 "Scavenger receptor cysteine-rich domain"
 Domain 420..525 "Scavenger receptor cysteine-rich domain"
 /note= "Scavenger receptor repeat"
 WO200179291-A2.
 25-OCT-2001.
 11-APR-2001; 2001WO-US11861.
 14-APR-2000; 2000US-197854P.
 04-MAY-2000; 2000US-202373P.
 18-MAY-2000; 2000US-205849P.
 01-JUN-2000; 2000US-209401P.
 01-JUN-2000; 2000US-210155P.
 XX (INCY-) INCYTE GENOMICS INC.
 PA Griffin JA, Yao MG, Bruns CM, Yue H, Deleage AM, Hafalia A;
 Patterson C, Policky JL, Tribouley CM, Brugha MR, Nguyen DB;
 Lal P, Tang YT, Hillman JL, Lu DAM, Batia S, Au-Young J, Reddy R;
 Azimzal Y;
 XX WPI; 2002-066344/09.
 DR N-PSDB; AAD24786.
 XX New human secreted proteins for treating, diagnosing or preventing cell
 proliferative, cardiovascular, autoimmune/inflammatory, neurological
 and developmental disorders.
 XX Claim 1; Page 104-106; 124pp; English.
 XX The invention relates to an isolated human secreted protein (SECP) and
 nucleotide molecule encoding the protein. SECP is used as vaccine. SECP
 is used to diagnose, treat and prevent cell proliferative (e.g.
 atherosclerosis, arteriosclerosis, hepatitis, psoriasis and cancers),
 autoimmune/inflammatory (e.g. acquired immunodeficiency syndrome (AIDS),
 Addison's disease, allergy, anaemia, asthma, atopic dermatitis, diabetes
 mellitus, glomerulonephritis, trauma, ulcerative colitis and viral,
 bacterial, fungal, parasitic, protozoal and helminthic infections),
 cardiovascular (e.g. angina pectoris, myocardial infarction, ischaemic
 heart disease, hypertension, pulmonary congestion and oedema),
 neurological (e.g. Alzheimer's disease, Huntington's disease, dementia,
 Parkinson's disease, Creutzfeldt-Jakob disease, schizophrenia, epilepsy,
 mental disorders including mood, anxiety and seasonal affective disorder
 and prion diseases) and developmental disorders (e.g. renal tubular
 acidosis, Duchenne and Becker muscular dystrophy, seizure disorders,
 congenital glaucoma and cataract). SECP is used for creating knockin
 humanised animals or transgenic animals to model human diseases. SECP is
 used in somatic or germ-line gene therapy. SECP is used for detecting
 differences in chromosomal location due to translocation, inversion, etc.
 among normal, carrier or affected individuals. SECP is used as
 hybridisation probes for mapping naturally occurring genomic sequences
 and in a number of drug screening techniques. The present sequence is
 human SECP-3 protein.

XX	SQ	Sequence	753 AA;
		Query Match	54.1%; Score 2263; DB 23; Length 753;
		Best Local Similarity	54.5%; Pred. No. 8.3e-199;
		Matches	419; Conservative 105; Mismatches 205; Indels 40; Gaps
QY	3	WSPDATLFLFL--LLGQPPPS-----RPSLGTTKLRLVLGVPESKPEERLEVLHQQGW 55	
Db	9	WSPMGLLLCLLCSCLGSPSPSTGPEKKAGSQ--LRFLAGPRKPEYGRVETIQRAGWG 67	
QY	56	TVCCDNFAIQEATVACRQLGFEAALTWAHSAKYCQEGPTIWDNTVCVTESSLDOCGSN 115	
Db	68	TICDDDFTLQAHLTLCRELGFTRATGHTHSARKYGPGTGRIWLNDLSCSGTEQSVTECASR 127	
QY	116	GWGSDCSHSEDVGVICHPRRHRYGILSETVSNALGPQRRLEVRLEVRLEVRLEVRLEVRLEVR 175	
Db	128	GWGNSDCTHDEDAGVICKDQRLPGFSDSNVIEV--EHHLOVEVRIRPAVGWGRRLPVT 185	
QY	176	EGAVEVYEGHWROVDCQWMTMNNRSVCCMLGFPSEVPVDSHYRYKRWDLKMRDPKSL 235	
Db	186	EGLVEVRLPDGWSQVCDKGWASHNSHVCCMLGFPSEKRVNAAFY-----RL 232	
QY	236	KSLTNKNSFWIHWTCLTGTEPHMANCOVQVAPARGKLRPACPGMHAVVSCVAGPHF--- 292	
Db	233	LAQRQHSFGLHWACVYGTFAHLISLCSLEFYRANDTAR--CPOGGPAVVCVPGPVYAA 290	
QY	293	---RPKTKPQRKGSMAESPVRRLRSGCAQVGRVEVLNMRQWTVCDHRWNLISASVV 348	
Db	291	SGQKKQQQSKPQ-----GEARVLKGAHPGGRVEVLKASTWGTVCDRKMDLHAASVV 344	
QY	349	CRQLGFGSAREALFGARLGQGLGPILHSEVRCRGYERTLSDCPALEGSSONGQCHENAAAV 408	
Db	345	CRELGFGSAREALSGARMGQMGAIHLSEVRCSGQELSLWKCPKHNIATEDCSHSQDAGV 404	
QY	409	RCNVPNMGFQNVRLACGRIPBEGGLEVEQVEVNGVPRWGSVCSENWGLTEAMVACRQLGL 468	
Db	405	RCNLPYTGAEIRILSGRSQHEGRVEVQIGGPGPLRWGLICGDDWGTLEAMVACRQLGL 464	
QY	469	GFAJTHAYKETWFSGTTPRAQEVVMVSGVRCSTELALQCCQRHGP-VHCSHGGRFLAGVS 527	
Db	465	GYAHNGIQETWYWD-SGNITEVVMVSGVRCSTELSDQCAHGHGTHTCRKTGTRFTAGVI 523	
QY	528	CMSADPLVMNAQLVQETAYLEDRPLSQLCAHEENCLKSADHMDWPYGYRRLLFSTQ 587	
Db	524	CSETASDLLHSAIVQETAYIEDRPLHMLYCAAEENCLASSASSANWPYGHRRLLRFSSQ 583	
QY	588	IYNLGRDTRFPKTRGRDSWWHHQCHRHVHSTIEVTFHYDILLTNGSKVAEGHKASFCLEDTN 647	
Db	584	IHNLGRADFRPKGRHSWWVHECHGHVHSDIETHYDILTPNGTKVAEGHKASFCLEDTE 643	
QY	648	CPTGLORRYACANFGEQGVTVGCWDTYRHDIDCOWVDITDVGPNGYIFQVIVNPHYVEAE 707	
Db	644	QEDVSKRYECANFGEQGITVGCWDLRYRHDIDCOWIDITDVKPGNYILQVIVNPNFEVAE 703	
QY	708	SDFSNNMLQCRCKYDGHVRVWLNHCHTGNYSYPANAELSLEQERLNNLI 756	
Db	704	SDFTNAMKCNCKYDGHRIWVHNCHIGDAFSEEAANRFERYPQTSNQI 752	
RESULT 15			
AAG66059	ID	AAG66059 standard; Protein; 753 AA.	
XX	AC	AAG66059;	
XX	DT	27-FEB-2002 (first entry)	
XX	DE	Human lysyl oxidase-like (LOXL3) protein.	
XX	KW	Lysyl oxidase; lysyl oxidase-like; LOXL; LOX; neuroprotective; neurot	
XX	KX	dermatological; hepatotropic; cytostatic; antidote; LOXL3.	

OS	Homo sapiens.
XX	
PX	WO200183702-A2.
XX	
PD	08-NOV-2001.
XX	
PF	03-MAY-2001; 2001WO-US14472.
XX	
PR	03-MAY-2000; 2000US-201587P.
XX	(UYHA-) UNIV HAWAII.
PA	
PI	Csiszar K, Boyd CD, Kim Y, Le Saux CJ, Fong SFT;
XX	
DR	WPI; 2002-041491/05.
N-PSDB; AAI67788.	
XX	
PT	Novel copper-dependent lysyl oxidase-like proteins, nucleic acids
encoding the protein for diagnostic assays and identifying modulators	
useful for treating cancer, skin, copper-related, pulmonary or hepatic	
disorders -	
PT	
XX	
PS	Claim 3; Page 78; 82pp; English.
XX	
CC	The invention provides lysyl oxidase-like (LOXL) polypeptides and
polynucleotides encoding them. The LOXL proteins (LOXL3 and LOXL4) can be	
expressed by standard recombinant methodology. The LOXL polypeptides are	
useful for identifying their modulators which can be used for treating a	
disorder associated with LOX or LOXL polypeptide activity, including	
disorders related to extracellular matrix materials, a cell migration,	
cell proliferative disorder, skin, vascular system, developmental,	
skeletal, neurological, hepatic system, copper-related, pulmonary system	
disorders or lathyrism disorder and cancer in a subject. The LOXL	
polynucleotides are useful as probes and primers. The LOXL polypeptides	
are useful in bioassays, for the production of antibodies, useful for	
diagnostic assays to determine expression levels and localization of	
LOXL3 and LOXL4 proteins and other proteins of the LOX gene family in	
various tissue samples from healthy or infirm subjects and to purify the	
proteins. The antibodies are therapeutically useful to counteract or	
supplement the biological effect of LOXL proteins in vivo. The present	
sequence represents a human-derived LOXL3 protein.	
XX	
SQ	Sequence 753 AA;
	Query Match 54.1%; Score 2263; DB 23; Length 753;
	Best Local Similarity 54.5%; Pred. No. 8.3e-199;
	Matches 419; Conservative 105; Mismatches 205; Indels 40; Gaps 10;
Qy	3 WSPPATLFLFIL--LLGQQPPS-----RPSLGTTKLRVLGPESKPEGRLEVLHQQGWG 55
	: :
Db	9 WSPGGLLCLLCSCSLGSPSTGTFEKKAGSQG-LRFRLAGFPRKPYEGRVEIQRAGEWG 67
	: :
Qy	56 TVCDNFAIGBATVACQLGFEEALTWAHSAKYQGEGPIWLDNVRCVGTESSLDQGSN 115
	: :
Db	68 TICDDDTFLQAHLICRELGFTEATGHTSAKYPGTGRWLNDLSCSGTSEQSVTECASR 127
	: ~:
Qy	116 GWGYSDCSHSEDVCVIChPRRHRYGLSETYSNALGPQGRLEEVRLPILASAKQHSPVT 175
	: :
Db	128 GWGNSDCTHDEDAVICKQRLPGFSDSNVIEV--EHHLQVEEVRIIRAVGWGRPLDPVT 185
	: ~:
Qy	176 EGAVEVKYEGHWRCVQDGGMNNRSVCGMLGFPSEVPVDSHYRYRWMDLMRDPKSRL 235
	: ~:
Db	186 EGLVEVRLPDGWSQVCDKGWSAHNSHVVCMLGFPSEKRVAIFY-----RL 232
	: ~:
Qy	236 KSLTNKNFSFWIHQVTCLTGETPHMANCOVAPARGKLRPACPGGMHIAVVSVCAGPHF--- 292
	: ~:
Db	233 LAQRQHSFGLHGAVCVGTGEAHLISLCSLEFYRANDTAR--CPFGGGPVVSCVPGPVVAAS 290
	: ~:
Qy	293 ---RPKTTTPORKSWAEPRVELRSCAQGVGEVRVLMNRQMTGVCDEHMNLISASVV 348
	: ~:
Db	291 SGQKKQKQSKQPQ-----GEARVELKGAHPGEGRVEVLKASTWTGTCRKWDLHAASVV 344
	: ~:
Qy	349 CROLGFGSAREALFGARLGOGILGIHLSEVRCRGYERTLSDCPALEGSSONGCOHENAAV 408

XX Human lysyl oxidase-like (LOXL3) protein.

XX Lysyl oxidase; lysyl oxidase-like; LOXL; LOX; neuroprotective; nootropic;
KW dermatological; hepatotropic; cytostatic; antidiote; LOXL3.

us-09-924-946-2.rag

Wed Apr 2 09:13:59 2003

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Db 345 CRELFGSAREALSARMGQMGAIHLSEVRCSELSLWKCPHKHNITAEDCSHSODAGV 404
QY 409 RCNVPNMGFONOVRLAGGRIPPEGLLEVOEVNGVPRWGSVCSENWGLTEAMVACROLGL 468
Db 405 RCNLPYTGAETRIIRLSGGRSQHEGVEVQIGPGPLRWGLICGDDMGTLTEAMVACROLGL 464
QY 469 GFATIHAYKETFWMSGTPRAOEVVMSGVRCSTELALOCORHGP-VHCSHGGRPLAGVS 527
Db 465 GYANHGLQETWYND-SGNITEVVMGVRCTGTLSLDOCAHHGTHITCKRTGTFTAGVI 523
QY 528 CDSAPDLVWNAOLVOETAYLEDRPLSQLYCAHEENCLSKGADHMDWPYGYRRLRRESTQ 587
Db 524 CSETASDLLHLSALVOETAYIEDRPLHMLYCAEENCLASARSANWPGYHRRLLRFSSQ 583
QY 588 IYNLGRTPDKPTGRDSVWVHCHQHRHYHSIEVFTHYDILLTNGSKVABGHKASFCLEDTN 647
Db 584 IHNUGRADPRPKAGRHSVWVHCHGHYHSMDIFTHYDILLTNGTKVABGHKASFCLEDE 643
QY 648 CPTGLQRYACANFGEQGVTVGCWDTYRHDIDCQWYDITDVGPNGYIFQVIWNPHEVAE 707
Db 644 QEDVSKRYECANFGEQGITVGCWDLRYRHDIDCQWIDITDVKPGNYILOVWINPFEVAE 703
QY 708 SDFSNNMLQCRCKYDGHVWHLNCHTGNSTYANAELSLEQORLNNLI 756
Db 704 SDFTNNAMKCNCKYDGHRIWVHNCIHGDAPSEENRRFERYPGQTSNQI 752

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Search completed: March 28, 2003, 12:06:44
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